

REMARKS

Claims 1-7, 9, 12-18, and 42-46 are currently pending in the subject application and are presently under consideration. Claims 1 and 13 have been amended herein, claims 42-46 have been added, and claims 8, 10, 11, and 19-41 have been cancelled. A listing of all claims can be found at pages 2-5.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-7, 9, and 12-18 Under 35 U.S.C. §103(a)

Claims 1-7, 9, and 12-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Glass *et al.* (U.S. Appln. No. 2005/0060643) in view of Kephart (U.S. 6,732,149). This rejection should be withdrawn for at least the following reasons. Neither Glass *et al.* nor Kephart disclose each element as set forth in the subject claims.

The subject application relates to identifying both legitimate and undesirable mail. (*See Abstract.*) Specifically, the subject application relates to extracting message features particular to spam to facilitate spam prevention. (*See id.*) Independent claim 1, from which claims 2-7, 9 and 12-18 depend recites, in part, *a system that facilitates extracting data in connection with spam processing, comprising ... an analysis component that examines consecutiveness of characters within a subject line of a message and a content type of the message for spam in connection with building a filter, wherein the content type is case-sensitive, comprises primary content-type and a secondary-content type, or combinations thereof.* Examination of the content type identified in the message can help detect and identify spam since spammers attempt to mimic qualities of non-spam messages. (*See e.g.*, pg. 9, lns. 11-12 and pg. 18, lns. 1-2.) The content type can be case-sensitive to more accurately capture variations in content-type notations provided by message sending applications. (*See e.g.*, pg. 3, lns. 23-25.) Further, content-type can be case-sensitive to more accurately capture variations of primary and/or secondary MIME content-types. (*See e.g.*, pg. 9, lns. 12-14.) Additionally, primary content-type and secondary-content type can help identify messages that are forged or misrepresented to make the message appear to be non-spam. (*See e.g.*, pg. 3, lns. 16-19 and pg. 14, lns. 5-7.) The cited art does not disclose, teach, or suggest at least these elements.

Glass *et al.* relates to document similarity detection and a classification system. Glass *et al.* compares documents to determine a highest level of resemblance between an unclassified document and a set of previously classified documents. (See Abstract.) Glass *et al.* is concerned with *preclassifying* documents to aid in comparing the documents. This is simply placing the documents in a similar format for comparison; it is not examining a content type of the message for spam, as claimed. Further, as conceded in the Final Office Action, Glass *et al.* does not teach or suggest that the analysis component examines the consecutiveness of characters within a subject line of the message and Kephart is incorrectly relied upon to overcome the deficiencies of Glass *et al.*

Kephart relates to hindering an undesirable transmission or receipt of electronic messages. Specifically Kephart discusses a method for computing HashBlock data for a given message. (See col. 13, ln. 65 to col. 14, lns. 25.) The HashBlock is defined as a block of data computed from the body of the archetype and is used to measure overall similarity to other messages. (See col. 10 ln. 67 to col. 11, ln. 3.) The method includes transforming the message body, dividing the transformed message body into small individual units that might overlap, and for each individual unit, a hash function maps that unit to a small integer hash value. (See col. 13, ln. 65 to col. 14, lns. 25.) An array of these hash value counts is kept and is incremented by one each time a particular hash value is computed. (See *id.*) While describing the method, Kephart provides an example individual unit as being “all consecutive 5-character sequences”. However, Kephart does not teach or suggest examining consecutiveness of characters *within a subject line of the message*, as claimed. Kephart merely utilizes the term “consecutive” in an example while discussing a method for deriving HashBlock Data from a message body. Further, Kephart is silent regarding examining a content type of the message for spam, as recited in independent claim 1.

Additionally claim 2, which depends from claim 1, recite *the analysis component determines frequency of consecutive repeating characters within the subject line of the message*. In an example, a message having a small number of consecutive, repeating characters in the subject line might be a legitimate message while a message having a higher number of consecutive, repeating characters in its subject line might be a spam message. (See e.g., pg. 8, lns. 8-10.) Glass *et al.* is silent regarding at least these elements of claim 2. Further, as discussed above, Kephart relates to deriving HashBlock data by transforming a message body

before signature extraction. (See e.g., col. 13, ln. 65 to col. 14, lns. 7). The message body is divided into small individual units which can overlap (e.g., consecutive 5-character sequences) or not overlap (e.g., individual units delimited by black spaces, which is preferred. (See e.g., col. 14, lns. 9-13.) A hash function maps each unit to a small integer hash value and an array of 256 hash values is expressed as a HashBlock. (See e.g., col. 14, lns. 13-25.) This is merely deriving HashBlock data from the body of a message and the 5-character sequences (as described above) are simply consecutive sequences, not consecutive, repeating characters, as claimed. Since there is no teaching or suggestion in the cited art with respect to an analysis component that determines frequency of consecutive repeating characters within the subject line of the message, it would not have been obvious to a person having ordinary skill in the art to modify the cited art as proposed.

Further, claim 5, which depends from claim 1, recites *the analysis component determines distance between at least one alpha-numeric character and a blob*. As described in the detailed description, a blob is a random sequence of characters, numbers, and/or punctuation. (See e.g., pg. 2, ln. 31.) In some instances, the blob can be hidden from the message recipient's view. (See e.g., pg. 3, ln. 3-6.) Thus, the distance between at least one alpha-numeric character and a blob can be determined by analysis component in connection with spam processing. Both Glass *et al.* and Kephart are silent regarding a blob and, further, both are silent regarding an analysis component that determines distance between at least one alpha-numeric character and a blob, as claimed.

Further, with respect to newly added claims 42-46, independent claim 42 recites in part, a method for evaluating spam as a function of message content, comprising ...*examining the extracted set of features and consecutiveness of repeating characters within a subject line of the message to classify the message as spam or not spam* ... Neither Glass *et al.* nor Kephart teach or suggest at least these elements. Glass *et al.* relates to placing documents in a similar format for comparison and Kephart relates to deriving HashBlock data from a body of a message.

Based on at least the above, it is apparent that neither Glass *et al.* nor Kephart teach or suggest all elements of claims 1 (and the claims that depend there from), 2 and 5. It is respectfully requested that this rejection be withdrawn and the subject claims allowed.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP573US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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